

Wu 113122cont

IN THE CLAIMS:

13. (Canceled) .

14. (Canceled) .

15. (Canceled) .

16. (Canceled) .

17. (Canceled) .

18. (Currently Amended) A method for controlling access to a resource that may be shared by a plurality of users, which resource has an associated lock and the lock having an associated state, comprising the steps of:

when a user  $U_a$  of said users wishes to initiate access

said user sends to said lock command X that includes a tuple (M,S), where  $M=0$  and  $S=B_a$ , where  $B_a$  uniquely identifies user  $U_a$ ;

when said lock receives said command X, said lock returns to said user its state value  $B_i$  that is either 0 or a non-zero value that uniquely identifies a user  $U_i$  that previously set said lock, and when  $B_i=0$ , said lock sets its state to  $B_a$ , thereby granting to said user access to said resource,

where  $B_a$  includes an identifier,  $P_a$ , that uniquely identifies said user, and a time stamp,  $T_a$ , that is a time pertaining to said user,  $B_a$  is such that both  $P_a$  and  $T_a$  can be derived from  $B_a$ ,

where, when in response to command X said lock returns to said user said state of said lock  $B_i$  and  $B_i \neq 0$ , said user proceeds with the following steps:

derives value  $P_i$  and T from  $B_i$ ;

obtains value  $T_i$  that pertains to a user identified by  $P_i$ ;

if T is not equal  $T_i$ , sends command Z to said lock, which command

includes tuple (M,S), where  $M=B_i$ ; The method of claim 15

and

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where  $B_a = P_a + T_a * N$ , where  $N$  is an integer and  $P_a$  is a number less than  $N$ .

**19. (Currently Amended)** A method for controlling access to a resource that may be shared by a plurality of users, which resource has an associated lock and the lock having an associated state, comprising the steps of:

when a user  $U_a$  of said users wishes to initiate access

said user sends to said lock command  $X$  that includes a tuple  $(M, S)$ , where  $M=0$  and  $S=B_a$ , where  $B_a$  uniquely identifies user  $U_a$ ;

when said lock receives said command  $X$ , said lock returns to said user its state value  $B_i$  that is either 0 or a non-zero value that uniquely identifies a user  $U_i$  that previously set said lock, and when  $B_i=0$ , said lock sets its state to  $B_a$ , thereby granting to said user access to said resource,

where  $B_a$  includes an identifier,  $P_a$ , that uniquely identifies said user, and a time stamp,  $T_a$ , that is a time pertaining to said user,  $B_a$  is such that both  $P_a$  and  $T_a$  can be derived from  $B_a$ ,

where, when in response to command  $X$  said lock returns to said user-said state of said lock  $B_i$  and  $B_i \neq 0$ , said user proceeds with the following steps:

derives value  $P_i$  and  $T$  from  $B_i$ ;

obtains value  $T_i$  that pertains to a user identified by  $P_i$ ;

if  $T$  is not equal  $T_i$ , sends command  $Z$  to said lock, which command

includes tuple  $(M, S)$ , where  $M=B_i$ ; The method of claim 15

and The method of claim 17

where deriving  $P_i$  from  $B_i$  comprises expressing  $B_i$  in modulo  $N$ , and deriving  $T$  from  $B_i$  comprises dividing  $B_i$  to obtain a remainder that includes an integer value, and setting  $T$  to the integer value.

**20. - 27. (Canceled)**